

4thly. That charcoal is not an oxide of carbon ; since, when rightly prepared, it requires quite as much oxygen for its combustion as diamond.

And lastly, That the diamond differs from charcoal, solely in the firmness of its aggregation, which is generally known to be an obstacle to every chemical change.

An Account of the Relistian Tin Mine. By Mr. Joseph Carne, in a Letter to Davies Giddy, Esq. M.P. F.R.S. Read May 7, 1807. [Phil. Trans. 1807, p. 293.]

Mr. Davies Giddy communicated a letter from Mr. Joseph Carne, giving an account of the Relistian Mine in Cornwall, in which rounded pebbles were found at the depth of seventy-five fathoms from the surface. The description is accompanied with a section of the mine, and plan of the lode.

The lode has been seen at various depths, from twelve to ninety fathoms, but its width then diminishes rapidly toward the east, but more gradually toward the west. The substances not metallic are schist, chlorite, and quartz. There is an engine-shaft at eight fathoms from the lode, on the north side from which levels are driven to the lode in the direction of a flucan, or cross lode, which cut the main lode nearly at 45° from N.W. to S.E. The distance, in this oblique direction, is about fifteen fathoms; for the first ten fathoms there was only one flucan, of four inches width. Then it became divided into four parts, so much divergent from each other, that at the depth of seventy-five fathoms the extreme branches extended twelve feet in width; where the flucan reached the lode at this depth, there was first discovered a little copper, and then a body of pebbles, the section of which was about twelve feet square. In this part of the lode the schist greatly predominates; of course (says Mr. Carne) the pebbles are schistose, cemented in some parts by chlorite, in others by oxide of tin, which is generally crystallized, and in some of the crevices there is a little copper pyrites. The pebbles did not continue in a body to the height of more than two fathoms; but scattered bunches were found four fathoms above, and six fathoms below the place where they were first discovered.

At the depth of sixty-five fathoms, and in the lode adjacent to the flucan, on each side, had been found also a great number of schistose stones; but these were angular fragments, not rounded; nor was there any tin in or about them.

An Analysis of the Waters of the Dead Sea and the River Jordan. By Alexander Marcet, M.D. one of the Physicians to Guy's Hospital. Communicated by Smithson Tennant, Esq. F.R.S. Read June 18, 1807. [Phil. Trans. 1807, p. 296.]

This analysis is preceded by a short abstract of the notice taken of the Dead Sea by various ancient authors, by Strabo, by Tacitus,